



## *Vine to Wine Update*

*Oregon Wine Research Institute*

Welcome to the *Vine to Wine Update*. This monthly e-newsletter is designed to inform you of news, information, and events from the **Oregon Wine Research Institute**, highlighting our research programs and providing relevant information about the OWRI and our researchers. We continue to provide research-based viticulture and enology information for the Oregon wine industry. As always, we welcome industry input, so please ask **OWRI team members** questions from the vineyard or the cellar.

### **Fall is the Time to Monitor Vineyards for Winter Cutworm and True Armyworm**

*Dr. Patty Skinkis, Viticulture Extension Specialist and Associate Professor, OSU*

Winter cutworm was first detected as a pest in vineyards and other crops of the Willamette Valley during fall 2015. Another pest, true armyworm, was reported in high numbers in grass fields in the Willamette Valley in August 2016. When in the larval stage, both of these pests can cause damage to ground cover vegetation in a vineyard, including newly seeded or established cover crops between vine rows or vegetation in headlands or at the boundaries of vineyards. The damage at this time of year is primarily to vineyard floor vegetation, not the vines. It is unclear whether the winter cutworm or true armyworm will reach damaging levels in vineyards this fall and winter, but we encourage you to be aware of these pests and monitor for signs of potential damage. The winter cutworm has been found in a number of crop plants throughout the Willamette Valley as well as in lawns and landscapes. The true armyworm was found in grass fields and in nurseries where grasses were grown as cover crops between rows, according to Dr. Amy J. Dreves, Research & Extension entomologist in the Department of Crop and Soil Sciences at OSU. To date, there have not been reports of winter cutworm or true armyworms causing direct damage to grapevines, but a Washington survey of vineyards showed a different Noctuid moth species whose larvae were found climbing up grapevines in spring, although they were not the most prevalent of the cutworm population known to cause damage to grapevines (read more [here](#)).



*Winter cutworms are shown here in various stages of development- including the immature stage, larvae or caterpillars, and pupae, reddish brown. Photo by Dr. Amy J. Dreves Research and Extension Entomologist, Department of Crop and Soil Science, OSU.*

You can learn more about both pests by reading the OSU Extension publication and alert: [Winter Cutworm: A New Pest Threat in Oregon](#) and the [True Armyworm Pest Alert](#).

If you see damage and the pest this winter, please let us know by contacting [me](#) or [Amy Dreves](#).

## **Worker Protection Standards Regulation Changes Take Effect in January 2017**

*Dr. Patty Skinkis, Viticulture Extension Specialist & Associate Professor*

Effective January 2, 2017, all farms, including vineyards, will require that their agricultural workers receive annual WPS training, have easy access to information about all pesticides used on the farm, and receive necessary safety information while working around pesticides. The [Worker Protection Standard \(WPS\)](#), which is administered by the Environmental Protection Agency (EPA), was revised in 2015 to enhance the protections of farm workers and pesticide applicators from the risks associated with pesticides. It now requires more frequent training of agricultural workers and makes pesticide use recordkeeping a federal directive. For information about these changes, see the [National Pesticide Information Center](#) website. A brief [comparison chart](#) outlines the 2015 revision requirements from the prior standards. If you have not heard of WPS, be sure to learn more [here](#). The Oregon Department of Agriculture (ODA) also notified license-holders about these important changes in their [Fall 2016 Pesticide Bulletin](#) released in October. It is important to note that these standards are to be followed by all farms, large and small, and not just for those farms where staff ODA licensing is required.

## Dr. Alexander Levin Arrives in Southern Oregon



In late September, Dr. Alexander Levin joined the OWRI team as an assistant professor at the Southern Oregon Research and Extension Center in Central Point. Dr. Levin completed his Ph.D. degree in horticulture and agronomy at UC Davis under Drs. Mark Matthews and Larry Williams. Prior to pursuing a Ph.D., Alexander completed a bachelor's degree in psychology at University of Michigan. His experience in the wine industry came from working in Napa Valley as a harvest intern, and at Beringer Vineyards in St. Helena, CA.

Dr. Levin's research background includes investigating genetic differences on drought response between cultivars, evaluating plant water status, leaf conductance and vegetative growth, and the development of deficit irrigation regimes to optimize production goals. He conducted a multi-year field study investigating vine performance of 17 red winegrape cultivars under deficit irrigation. Using this knowledge, his research goals for southern Oregon include assessing water requirements in vineyards under non-stressed conditions, developing irrigation targets and protocols for controlling water stress, and evaluating cluster thinning practices. His irrigation research will include developing and validating crop coefficients for southern Oregon vineyards to improve irrigation scheduling, and to determine when it's best to initiate irrigation based on measurements of plant water status.

He is also interested in how vegetative and reproductive growth respond to light, temperature, nutrition, and water status. Because grapevines are perennial crops, managing environmental factors around the plants has a significant impact on their productivity and health. He will collaborate with OWRI team members to research the effects of timing and severity of cluster thinning on berry growth and ripening, as well as the effects of timing and method of leaf removal (by hand or by machine) on cluster architecture and microclimate.

Alex is committed to developing research and Extension goals that assist the southern Oregon wine industry. He states: "I am excited to work with the southern Oregon wine industry. It's an important and acclaimed wine grape growing region with knowledgeable and ambitious people. I want to work with industry members to propel the region forward on the state, national, and international level."

Dr. Levin may be contacted [here](#).

## ODA Spray Drift Prevention Update

An ODA pesticide drift seasonal review meeting was held in October to discuss the impact of outreach efforts. This committee is a collaborative effort between several commodity groups and agencies to educate applicators and reduce pesticide drift onto sensitive crops. Representatives from the wine, wheat, seed, nursery, and forestry commodities as well as Oregon county representatives, road departments, farm retailers, Oregonians for Food and Shelter, and the ODA Pesticide Department attended. These meetings started as a result of conversations between the Oregon Winegrowers Association and the ODA on behalf of

Oregon grape growers to encourage action to prevent damaging herbicide drift into vineyards.

To address this issue, industry and commodity partners have engaged in outreach efforts to inform consumers and pesticide applicators.

- Recorded automatic calls were delivered to all licensed applicators by ODA twice in spring before bud break and when temperatures warmed (increasing likelihood of volatility). These calls reminded them to pay close attention to weather conditions and read product labels when preparing to spray herbicides.
- Wilco placed shelf talkers near products like Crossbow® to inform customers of potential damage, and encourages staff to inform customers who are purchasing these products. Homeowners are a difficult sector to reach, therefore the efforts made at retail contact points will help inform and educate this group.
- The ODA presented 28 talks, including pesticide licensing training sessions, specific to spray drift and is currently updating its core manual to reflect greater emphasis on managing drift.
- Each commodity group also developed education materials to inform members of the hazards of drift into sensitive crops, reaching applicators with vital information.

In addition, Rose Kachadoorian, pesticide certification leader at ODA, explained that EPA will now require all pesticide users to be trained in worker protection standards, whether using restricted materials or not, which will impact all vineyards in Oregon, including the smallest vineyards who may be largely unaware of these regulations. Please make your neighbors and colleagues aware of this change.

The outreach and education efforts have led to a reduction in both vineyard and overall drift complaints to ODA during the 2016 growing season. Dr. Patty Skinkis, Statewide Viticulture Extension Specialist, noted a reduction in the number of concerned vineyard managers calling about drift this season. ODA data supports these observations, with reported cases decreasing from 16 in 2015 to 10 in 2016, and reduction in the industry about problems with drift into sensitive crops. The ODA and the drift team plan to continue their efforts in 2017.

This committee serves as a successful example of collaboration between commodity groups, government, and industry members.

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**Dr. James Osborne Welcomes New Graduate Student into Lab**





Jared Johnson joined Dr. James Osborne's lab as a master of science (MS) student in September. Jared's project will explore the impact of SO<sub>2</sub> concentration and temperature during pre-fermentation cold soaks on microbial populations, and the resulting impact on wine aroma. His interest in enology and viticulture began after his parents planted their first plot of Malbec grapes in Roseburg, Oregon. Assisting with vineyard maintenance, coupled with his previous experiences in research and the craft beverage industry led him to a career in enology and viticulture. As an Oregon native, Jared also appreciates the challenges Oregon presents to winemakers and grape growers, and the unique wines that result from these challenges.

Prior to starting college, Jared spent a few years focusing on a career in music, and had the opportunity to tour the United States as the lead singer of a small rock band.

Welcome Jared!

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## Continuing Education/Educational Opportunities

### **Growing Farms: Successful Whole Farm Management**

This is an online self-paced course for those interested in starting their own small farm business or are within the first five years of establishing a farm business. It also has components that are helpful to those who are interested in changing their farm business plan. Although content is not specific to vineyard establishment, it covers the basic information needed in establishing a vineyard business. To learn more about the program and to register, see the *OSU Professional and Continuing Education (PACE) website*: <https://pace.oregonstate.edu/catalog/growing-farms-successful-whole-farm-management>

### **Pesticide Applicator's Course Series**

This is a series of six online courses that can be taken in sequence or a la carte. This is an excellent way to get training for yourself or your employees on important topics related to pesticide use and application. They are available at any time and qualify for Oregon Department of Agriculture (ODA) pesticide recertification credits. With new changes to the Worker Protection Standards (WPS), you may want to prepare yourself with some basic pesticide handling and safety information provided in these courses. To learn more about the courses offered, see the *OSU Professional and Continuing Education (PACE) website*: <https://pace.oregonstate.edu/catalog/pesticide-applicator-course-series>

### **Pest & Degree Day Models Seminar Series**

Learn how to use the website, [USPest.org](http://USPest.org), for obtaining pest, disease, and degree day model information that may be helpful in vineyard management. The series is presented by Dr. Len Coop of the Integrated Plant Protection Center at OSU. Each short seminar provides active examples of how to use different components of the website. While the three seminars do not specifically focus only on vineyards, you can find information on the website that is useful for vineyards, including location-based disease models for Botrytis and Grape Powdery Mildew (Gubler Thomas Model), and pest specific models for Spotted Wing Drosophila (SWD), Brown Marmorated Stink Bug (BMSB), and European Grapevine Moth.

- Using the My Pest Page:

[https://media.oregonstate.edu/media/t/0\\_wq0bzkxx](https://media.oregonstate.edu/media/t/0_wq0bzkxx)

- Making Degree Day Maps:  
[https://media.oregonstate.edu/media/t/0\\_mw8l60oj](https://media.oregonstate.edu/media/t/0_mw8l60oj)
- Accessing Pest & Degree Day Models:  
[https://media.oregonstate.edu/media/t/0\\_pzlvgs01](https://media.oregonstate.edu/media/t/0_pzlvgs01)

### **Learning the Basics of Viticulture and Enology**

Are you or your employees in need of knowledge about grapevine growth, wine microbiology, or the basics of vineyard or winery production? If so, you may want to consider taking some online, self-directed course modules this winter. Washington State University has a number of courses in viticulture and enology that are available on topics ranging from vineyard design to insect management, wine production, sensory and more! To learn more about the various modules available, visit:

<https://ecommerce.cahnr.wsu.edu/ViticultureAndEnology/shop/>

## **Upcoming OWRI Seminars**

### **Impact of Grape Leafroll Associated Virus-3 on Transcription Regulation and the Distribution of small RNA During Ripening**

Amanda Vondras, Ph.D. student, Dr. Laurent Deluc, OSU Department of Horticulture

Thursday, November 17, 3:30 PM

Kidder 202 (Campus map [here](#))

Grapevine leafroll associated virus 3 (GLRaV-3) is the most economically impactful virus affecting grapevines worldwide. However, there is little that can be done to reduce the consequences of viral infection for the plant on fruit production. Ultimately, targeted attempts to mitigate the effects of the virus will require an understanding of the plant-pathogen interaction at the molecular level, to understand how mechanisms that underpin normal fruit development are altered by the virus, and whether particular regulatory pathways might account for system-wide responses to the virus. Regulation of gene expression through small-RNA and alternative splicing are essential components of plant development and responses to stress. We used Next Generation Sequencing technologies (RNA and small-RNA sequencing) to assemble a holistic view of these regulatory agents during normal ripening in *Vitis vinifera* and how they are altered in response to GLRaV-3 infection.

To watch this event live, visit: <http://live.oregonstate.edu/>

\*Please note, the event will not be available until 3:30 PM on Thursday, November 17.

## **News from the Oregon Wine Board**

### **Register Now for the 2017 Oregon Wine Symposium**

Register now for the [2017 Oregon Wine Symposium](#), Feb. 21-22 at the Oregon Convention Center in Portland. The Symposium comprises two full days of industry thought leaders and experts covering the most relevant topics in viticulture, enology, and wine business plus the Northwest's largest wine industry trade show, with more than 170 exhibitors.

The Symposium is a must-attend event for wine industry professionals, delivering cutting-edge technical and business intelligence trends across all aspects of the wine business. All winery and vineyard owners, vineyard managers, winemakers, marketing and sales managers, and winery staff should [register today](#) to take advantage of the lowest Symposium ticket rates!

### **Submit Your Application for the 2017 Experimental Wine Tasting**

The experimental wine program is back for the 2017 Oregon Wine Symposium. [Click here](#) to submit an application or for more information about the program. Applications are due by Jan. 6. For questions, contact [Carrie Hardison](#).

## **Save the Date! 2017 Washington Association of Wine Grape Growers Convention: February 7, 8 and 9**

The WAWGG Convention is the premier educational and networking opportunity for the Washington and Eastern Oregon grape and wine industry with sessions for growers, vintners, viticulturists, enologists, tasting room staff, marketers, and more! This three-day event features a 200-booth trade show, a poster session showcasing the latest industry research, educational sessions, an Honors Reception recognizing industry leaders and legends, and networking opportunities.

For more information, just click below:

- [Trade Show](#)
- [Sponsorships & Advertising](#)
- [Call for Posters](#)
- [Location](#)
- [Hotels](#)

Have a particular topic or question you would like to see addressed in the Vine to Wine? Let us know.

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